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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,727	09/09/2003	Jeyhan Karaoguz	14168US02	2798

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EXAMINER	
PARK, JUNG H	

ART UNIT	PAPER NUMBER
2419	

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11/06/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/658,727	KARAOGUZ ET AL.	
	Examiner	Art Unit	
	JUNG PARK	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Remark

1. This communication is considered fully responsive to the Amendment filed on 07/16/08.

   a. The claims have not been changed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 2004/0039817, "Lee") in view of Schmidt (US 7058040, "Schmidt").

Regarding claims 1 and 21, Lee discloses a method [and a system] for providing communication in a multi-band multi-protocol hybrid wired/wireless network, the method comprising:

- determining a protocol (selecting one of 802.11 family protocols, see 110-114 fig.1 and ¶.29) associated with a communication signal for an access point (AP) (signal associated with AP, see ¶.29);

Lee lacks what Schmidt discloses, "allocating a processor within the access point (dedicated CPU and digital signal processor, which are in a wireless communicator device, configured to operate optimally on specific problem, see col.5, ln.38-40 and ln.51-66) the processor compatible with the determined protocol (a bank of DSPs with embedded functions); and processing the communication signal by the allocated

processor (number of active processor is controlled depending on the application, see col.5, ln.64-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply a dedicated digital signal processor (DSP) for specific function/protocol of Schmidt into the access point of Lee in order for the number of active processors to be controlled depending on the application so that power is not used when it is not need for system efficiency since DSP is designed for containing architectural optimizations to speed up processing. These optimizations are also important to lower costs, heat-emission and power-consumption.

Regarding claim 2, Lee discloses, “further comprising selecting the allocated processor from a pool of available processors for the processing of the communication signal (110-114 fig.1).”

Regarding claim 3, Lee discloses, “wherein the allocating further comprises updating the processor to be capable of the processing of the communication signal (122 fig.1).”

Regarding claim 4, Lee discloses, “wherein the updating further comprises downloading protocol code compatible with the determined protocol to the processor (inherent to access one of 802.11 protocols, see ¶.29).”

Regarding claim 5, Lee discloses, “further comprising storing the compatible protocol code in a memory (inherent to save the protocol code in a not shown memory, see fig.1 and ¶.29).”

Regarding claim 6, Lee discloses, “wherein the downloading further comprises retrieving the compatible protocol code from a portion of the memory (retrieve to configure, see ¶.29).”

Regarding claim 7, Lee discloses, “further comprising associating the determined protocol code with the portion of the memory (store obtained information, see ¶.35).”

Regarding claim 8, Lee lacks what Schmidt discloses, “further comprising tuning at least one transceiver device to at least one of a receive and a transmit frequency associated with the communication signal (col.4, ln.4-16).” Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply a transceiver taught by Schmidt into the system of Lee in order to tune a transmit frequency for better/optimum performance.

Regarding claim 9, Lee lacks what Schmidt discloses, “wherein the processor is a digital signal processor (DSP) (153 fig.2A and col.5, ln.51-56).” Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to apply a DSP taught by Schmidt into the system of Lee in order to have embedded functions in the DSP since DSP is a special-purpose CPU used for digital signal processing applications to provide ultra-fast instruction sequences.

Regarding claim 10, Lee discloses, "wherein the protocol is one of an 802.11a, 802.11b, 802.11g and Bluetooth protocol (¶.11)."

Regarding claim 11, it is a claim corresponding to claim 1, except the limitation of "computer-readable medium (inherent to have a medium to operate the flowchart in fig.1 and other algorithms, see ¶.7)" and is therefore rejected for the similar reasons set forth in the rejection of claim 1.

Regarding claims 12-17 and 20, they are claims corresponding to claims 2-7 & 10, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Regarding claims 18, 19, 28, 29, and 30, they are claims corresponding to claims 8, 9, 8, 9, & 10, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Regarding claims 22-27, they are claims corresponding to claims 2-7, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Regarding claim 31, Lee discloses, "wherein the at least one integrated transceiver utilizes a single protocol stack for processing the communication signal for the 802.11a, 802.11b, and 802.11g protocols (see ¶.11), but lacks what Schmidt

discloses, “Bluetooth protocol (col.1, ln.31).” Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include Bluetooth protocol taught by Schmidt into the stack of Lee in order to provide more options clients looking Bluetooth technology which is available at the time of invention.

Response to Arguments

4. Applicant's arguments filed have been fully considered but they are not persuasive.

At page 13, applicant argues that Schmidt discloses the wireless communicator device as a cellular phone, not as an access point and Schmidt does not even mention of an access point in the entire reference.

In reply, Schmidt discloses a multi-mode wireless communicator devise fabricated on a single integrated chip and the method of communicating on a short-range radio channel such as Bluetooth or IEEE 802.11 as described in col.2, lines 40-44 and the communicator device, for example, is used in the cellular telephone connection mode. That is, Schmidt does not say that the communicator device is a cellular device as said by applicant and also, the communicator device is used in the same endeavor, which is in wireless LAN, of application and the primary reference by Lee. Schmidt further discloses that the communication is between a mobile station and a base station as described and shown in Fig.1D and col.4, lines 36-63. Schmidt mentions the base station, which is equal to the access point, many places in the entire reference. Therefore, the examiner respectively disagrees.

At page 13, applicant argues that Schmidt fails to disclose “allocating a processor within the access point, the processor compatible with the determined protocol".

In reply, Schmidt discloses that a dedicated CPU and digital signal processor (DSP) is configured to operate optimally on specific problem as described in col.5, lines 56-66 and dedicated hardware and active processors is/are provided to handle specific algorithms and/or applications as described in col.5, lines 56-66. DSP is designed for containing architectural optimizations to speed up processing and these optimizations are also important to lower costs, heat-emission and power-consumption. Therefore, ordinary person in the art applying a dedicated digital signal processor (DSP) for specific function/protocol of Schmidt into the access point of Lee in order for the number of active processors to be controlled depending on the application so that power is not used when it is not need for system efficiency. Therefore, the examiner respectively disagrees.

At page 14, applicant argues that the combination of Lee and Schmidt do not disclose or suggest the limitation of "processing the communication signal by the allocated processor within the access point".

In reply, Lee discloses the determining method of a protocol associated with a communication signal for an access point as described and shown in 110-114 Fig.1 and paragraph 29, but does not explicitly disclose allocating a processor based on the determined protocol. However, as responded in the above paragraph, Schmidt discloses the method of allocating a processor based on the algorithms/protocols. That is, the combination of Lee and Schmidt disclose the limitation of “processing the communication signal by the allocated processor within the access point". Therefore, the examiner respectively disagrees.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 6:15-3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jung Park/

Examiner, Art Unit 2419

/Edan Orgad/

Supervisory Patent Examiner, Art Unit 2419